1

Sequence Listing

SEQ ID No 1
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SEQ ID No 2
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SEQ ID No 5
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SEQ ID No 6
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SEQ ID No 8
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SEQ ID No 9

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SEQ ID No 10

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SEQ ID No 11

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SEQ ID No 12

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SEQ ID No 13

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SEQ ID No 14

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SEQ ID No 15

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SEQ ID No 16

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SEQ ID No 17

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SEQ ID No 18

ATGGCTACTTCCACTACCTCCGACCTCAAACTCTCCCAACCCCTCACCCTCCCCAATGGCCTTACCCTCCCCAACCGC
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ACCTGGGGCCCGCGGCGACTGGGGCCTGATTCTCACCGGCAACGTCCAAGTCGACCACGCGCACAAGGGCGACGCCCAC
GACATCAGCCCCAACCACCCCGGCACCACGCCCGAGCAGACCGTCACGGCCTTCAAGGCCTGGGCGGACGCCGCGCGC
CTGAATGGCCAGTCCAAAACGCCTGTGGTCGTGCAGATCAACCACCCTGGTCGCCAGAGTCCGATGGGCGCGGGCACG
CGGGGACTGTGGGAGAAGGCGGTGGCGCCCTCGCCGGTGCCGTTGGTGTTGGGAGAGGCGTTTGTGCCTCGCTTGTTG
TCGAAAGTGCTTTTCGGCACGCCGCGGGAGCTGACGGTTGCGGAGATCAAGGATATCGTGCAAAAGTTTGCGGTGACG
GCGAGGATCACGGCCGAGGCCGGGTTCAATGGCGTGGAGATCCATGCGGCGCATGGATACCTGTTGGCGCAGTTCTTG
AGCAAGAAGACAAACAGGCGCGGGGATGAGTATGGCGGGTCGGCTGAGAACAGGGGCGAGGATTGTTGGGGAGATTATT
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AGTGCGGATTGGCAGGCGGGACGCGATGGAAAGGAGGAGGAGGAGACGGATACGGCGGAGGAGGTGTTGAAGCAGATT
GAGCTTTTTGAGCAGTGGGGGATCGACTTTGTCGAGGTTAGCGGTGGCAGTTATGAGGATCCTCAGATGGCCAACGGT
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SEQ ID No 19

MATSTTSDLKLSQPLTLPNGLTLPNRLVKAAMAEQMGFGNHLPNPELAAVYATWARGDWGLILTGNVQVDHAHKGDAH
DISPNHPGTTPEQTVTAFKAWADAARLNGQSKTPVVVQINHPGRQSPMGAGTRGLWEKAVAPSPVPLVLGEAFVPRLL

6

SKVLFGTPRELTVAEIKDIVQKFAVTARITAEAGFNGVEIHAAHGYLLAQFLSKKTNRRGDEYGGSAENRARIVGEII
KECRRQVTEAVGEEEAKKFVVGIKLNSADWQAGRDGKEEEETDTAEEVLKQIELFEQWGIDFVEVSGGSYEDPQMANG
PKPEKSERTMAREAFFLEFAKIIRTKFPKLPLMVTGGFRTRQGMEAALESDDCDMIGIGRPAIINPSLPANLILNPEV
PDADARLFDKKRAEPHWIVEKLGMKSIVGAGVEVTWYVSELKKLAKF

SEQ ID No 20

atgtcggcagaaaagaagactttgagcaaaccggccgccggggtgccttactacacccccagcccaggagccgccggca
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cgctttggcgtctcgcccatgtgcacctactcagccgacgatggccacctgaccgacttccacttggtgcacctgggc
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gacagcggcctgtggcaagacagccagatcgctcctctgcgccgcatcgtcgactacgtgcacagccagggccaaaag
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gcgaatcacatggcggcaagaccaaggcggatctggtcctcattgctcgccagttcctgcgcgagcctgagtttgtgc
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ggatttga

SEQ ID No 21

ATGTCGGCAGAAAAGAAGACTTTGAGCAAACCGGCCGCCGGGGTGCCTTACTACACCCCAGCCCAGGAGCCGCCGGCA
GGGACCCCCTTTGCAGCAGCAGGACGCCATCCCAACGCTGTTCAAGCCTCTGAAGATCCGTGGCGTCGAGCTCTCCAAC
CGCTTTGGCGTCTCGCCCATGTGCACCTACTCAGCCGACGATGGCCACCTGACCGACTTCCACTTGGTGCACCTGGGC
CAGTTCGCCCTGCACGGCACGGCCCTGACCATTGTCGAGGCCACATCCGTCACGCCCAACGGACGCATCTCGCCCGAG
GACAGCGGCCTGTGGCAAGACAGCCAGATCGCTCCTCTGCGCCGCATCGTCGACTACGTGCACAGCCAGGGCCAAAAG
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GAGTATAAGCCGAGAGAGGGCTTACAGGTCGTCGGACCCGAGTATGGCGGCTGGCCTGATGACGTCTGGGCCCCGAGC
GCCATCCCGTTCTCGGAGGACTTTCCGAACCCCAAGGAGATGACCGTTGAGGAGATTGAGGGACTCGTCACCAGCTTT
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GATGTCGTGGATGAGCAGGGCGCCGAGAAGGTGGCCGAGGCCAAGCAGACGCATGACACCATCGAGGTCGTGAGCGAA
TCACATGGCGGCAAGACCAAGGCGGATCTGGTCCTCATTGCTCGCCAGTTCCTGCGCGAGCCTGAGTTTGTGCTGAGG
ACGGCGCATAACCTTGGGGTCAATGTGCAGTGGCCTCACCAATACCACAGAGCAGTGTGGCGCAAGGGTGCAAGGATT
TGA

SEQ ID No 22

MSAEKKTLSKPAAGVPYYTPAQEPPAGTPLQQQDAIPTLFKPLKIRGVELSNRFGVSPMCTYSADDGHLTDFHLVHLG
QFALHGTALTIVEATSVTPNGRISPEDSGLWQDSQIAPLRRIVDYVHSQGQKIAIQLAHAGRKASTKAPWHDSFTPSG
EYKPREGLQVVGPEYGGWPDDVWAPSAIPFSEDFPNPKEMTVEEIEGLVTSFVDAAKRAIEAGVDIIEIHGAHGYLIT
EFLSPLSNKRTDKYGGSFENRTRVLIDIIKAVRAVIPEEMPLFVRISATEWMEYAGEPSWDLEQSTQLAKLLPDLGVD
LLDVSSGGNSVAQKIELTPYYQIDLAAKIREAVGDRLLIGAVGNINTADIARDVVDEQGAEKVAEAKQTHDTIEVVSE
SHGGKTKADLVLIARQFLREPEFVLRTAHNLGVNVQWPHQYHRAVWRKGARI

SEQ ID No 23

ATGACTATTGTTAATGAAGGAGCCGAAAATGTTGGTTATTTTACACCTGCGCAAAAAATACCAGCTGGAGCGGCGATA
GGTGTACCGCAAACAAAATTATTTACTCCTCTTAAAATTAGAGGAGTGGAGTTCCATAACAGAATGTTTGTTTCGCCG
ATGTGCACTTATTCCGCTGACCAAGAAGGGCATTTGACAGATTTTCACCTAGTACATCTTGGAGCGATGGGAATGCGT
GGGCCTGGCCTTGTAATGGTAGAAGCGACAGCGGTTTCCCCAGAGGGACGAATTTCACCTAATGATTCAGGATTATGG
ATGGAGTCGCAAATGAAGCCGTTACAAGAATTGTTGAATTTGCTCATTCGCAAAATCAAAAAATTGGGATTCAATTG
GCGCATGCTGGTAGAAAGGCTAGCACCACTGCTCCTTATCGAGGATACACAGTTGCGACTGAAGCTCAAGGTGGGTGG
GAGAATGATGTTTATGGACCAAATGAAGACAGGTGGGACGAAAACCACGCTCAACCTCATAAGTTAACTGAAAGCAA
TATGATGAATTAGTGGATAAGTTTGTTGTTGCTGCGAAGCGTGCAGTTGAAATAGGTTTTGATGTAATTGAAATTCAT
GGCGCTCATGGTTATCTTATATCGTCAACAGTTAGTCCTGCCACTAATGACCGCAATGACAAGTATGGTGGGACATTT
GAGAAACGTATTTTGTTTCCTATGGAAGTTGTCCATTCGTTCGTAAAGCAATTCTGTTCGATAGATGCCCTTGTTTTAT
AGAGTAACGGCTACAGATTGGTTGCCCAAAGGACAAGGATGGGAGATAGAAGATACAGTTGCATTAGCAGCGAGGCTT
CGCGATGGTGGTGTTGACTTGATAGATGTTAGCTCTGGTGGTAATCACAAGGATCAAAGAATTGAGGTGAAGGATTGC
TATCAAGTTCCTTTTGCGGAAAAGATTAAGGATCAAGTGAATGGAATACTACTTGGCGCTGTCGGAATGATCAGGGAT
GGTCTTACGGCGAATGAAATCCTAGAAAGTGGAAAAGCTGATGTTACTTTTGTCGCAAGGGAGTTCTTAAGGAACCCG
TCGTTGGTGCTAGACAGCGCGAACCAGTTGGGTGAAAATGTTGCATGGCCAGTTCAGTATGACTATGCAGTTAAGGGA
CACAGAAAGTTACGTTGA

SEQ ID No 24

MTIVNEGAENVGYFTPAQKIPAGAAIGVPQTKLFTPLKIRGVEFHFTNRMFVSPMCTYSADQEGHLTDFHLVHLGAMG
MRGPGLVMVEATAVSPEGRISPNDSGLWFTMESQMKPLRRIVEFAHSQNQKIGIQLAHAGRKASTTAPYRGYTVATEA
QGGWENDVYGPFTNEDRWDENHAQPHKLTEKQYDELVDKFVVAAKRAVEIGFDVIEIHGAHGYLISSTVSPAFTTNDR
NDKYGGTFEKRILFPMEVVHSVRKAIPDSMPLFYRVTATDWLPKGQGWEIEDTVAFTLAARLRDGGVDLIDVSSGGNH
KDQRIEVKDCYQVPFAEKIKDQVNGILLGAVGMIRDGLFTTANEILESGKADVTFVAREFLRNPSLVLDSANQLGENV
AWPVQYDYAVKGHRKLR

SEQ ID No 25

CGAAACCTCGACCCAAACAAACAGCTGACCCTCTCCTTGACAACAAAGCCGGCCATCCTCGCCGACGATTGCCTCTAC
CCCCGCATAGTCACACTCGCACGTCCGTTCTCCCACCGTCAAACAGACAGCATGACGGGCACCGCGAACAAGGCCGCC
CCCGGTGTGCCGTTTTACACCCCGGCCCAGGAGCCTCCCGCGGGAACGCCAGTCGACGCCAGCACGGCTCCGACGCTC
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AATGGCCACGCGACCGACTACCACCTCGTCCACCTGGGCCAGTTCGCCCTGCACGGCGCCGCCCTGTCCATGGTCGAG
GCCACCGCCGTCGAGGCTCGTGGCCGCATCTCCCCCGAGGATGTCGGTTTGTGGCAGGACTCGCAGATTGCCGCCTG
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GTGGCTCCCAGCGCGATTCCTTACACCAAGGACTGGGCCACACCGCGTGAGTTGACTACCGAGGRRGTCGAGGGTCTG
GGTGAAGAAGTTCGCCGAGTCGGCCAAGAGGTCAAATCGAGCTGGTTTTGACGTCATTGAGATCCACGCCGCTCA

SEQ ID No 26

ATGACGGGCACCGCGAACAAGGCCGCCCCCGGTGTGCCGTTTTACACCCCGGCCCAGGAGCCTCCCGCGGGAACGCCA
GTCGACGCCAGCACGGCTCCGACGCTCTTCAAGCCCCTCCGCATCCGCGACCTCACCATCAACAACCGCATCTGGGTC
AGCCCCATGTGCCAGTACTCCGCCGACAATGGCCACGCGACCGACTACCACCTCGTCCACCTGGGCCAGTTCGCCCTG
CACGGCGCCGCCCTGTCCATGGTCGAGGCCACCGCCGTCGAGGCTCGTGGCCGCATCTCCCCCGAGGATGTCGGTTTG
TGGCAGGACTCGCAGATTGCGCCGCTGAAGCGCATCGTCGACTTTATCCACTCGCAGAACCAGGTCGCGGCCATCCAG
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AGCGAGAACGGCTGGCCCGACGACGTTGTGGCTCCCAGCGCGATTCCTTACACCAAGGACTGGGCCACACCGCGTGAG
TTGACTACCGAGGRRGTCGAGGGTCTGGGTGAAGAAGTTCGCCGAGTCGGCCAAGAGGTCAAATCGAGCTGGTTTTGAC
GTCATTGAGATCCACGCCGCT

SEQ ID No 27

MTGTANKAAPGVPFYTPAQEPPAGTPVDASTAPTLFKPLRIRDLTINNRIWVSPMCQYSADNGHATDYHLVHLGQFAL
HGAALSMVEATAVEARGRISPEDVGLWQDSQIAPLKRIVDFIHSQNQVAAIQLAHAGRKASTLAPWITEARGKALAQE
SENGWPDDVVAPSAIPYTKDWATPRELTTEXSRVWVKKFAESAKRSNRAGFDVIEIHAA

SEQ ID No 28

GAACTGCTGTAGATGTGGTTGAATTGGTATATTAGACCGGAGTACTCTATATGCGAGAGACTATACATTGAAGTTGCC
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CCGGCTCAAGACCCGCCAGCTGGTACGCAGACAAGCGGCTCAACGAAGCTATTCACACCCATCACCATCCGCGGCGTC
ACATTCCCAAACCGCCTCTTCCTTGCCCCTCTCTGCCAATACTCCGCCAAAGATGGTTATGCCACTGATTGGCACTTG
ACTCACCTCGGGGGAATAATCCAAAGAGGCCCCGGATTGTCCATGGTGGAGGCTACCGCTGTACAAAACCACGGTCGC
ATCACACCTCAGGATGTTGGTCTGTGGGAAGACGGCCAGATCGAGCCTCTGAAGCGCATCACCACTTTCGCGCACAGT
CAGAGCCAGAAAATTGGTATCCAGCTGTCGCATGCGGGTCGCAAGGCCAGTTGCGTATCTCCCTGGCTAAGCGTAAAT
GCTGTCGCGGCGGAAGAAGTGGGTGGCTGGCCAGACAATATCGTTGCTCCCTCGGCCATCGCACAAGAAAATGGTGTG
AACCCAGTTCCCAAGGCTTTCACGAAGGAGGATATAGAGCAACTCAAGAGCGACTACGTGGAAGCGGCAAAACGAGCC
ATCCATGCTGGTTTCGATGTTATCGAAATTCATGCAGCTCATGGATATCTACTGCATCAATTCTTGAGTCCGGTAAGC
AATCAAAGAACCGACGAGTATGG

SEQ ID No 29

ATGGCTTACGAGATAATCGACAACGTTGCGGCTGAAGGGGTTCCATATTACACACCGGCTCAAGACCCGCCAGCTGGT
ACGCAGACAAGCGGCTCAACGAAGCTATTCACACCCATCACCATCCGCGGCGTCACATTCCCAAACCGCCTCTTCCTT
GCCCCTCTCTGCCAATACTCCGCCAAAGATGGTTATGCCACTGATTGGCACTTGACTCACCTCGGGGGAATAATCCAA
AGAGGCCCCGGATTGTCCATGGTGGAGGCTACCGCTGTACAAAACCACGGTCGCATCACACCTCAGGATGTTGGTCTG
TGGGAAGACGGCCAGATCGAGCCTCTGAAGCGCATCACCACTTTCGCGCACAGTCAGAGCCAGAAAATTGGTATCCAG
CTGTCGCATGCGGGTCGCAAGGCCAGTTGCGTATCTCCCTGGCTAAGCGTAAATGCTGTCGCGGCGGAAGAAGTGGGT
GGCTGGCCAGACAATATCGTTGCTCCCTCGGCCATCGCACAAGAAAATGGTGTGAACCCAGTTCCCAAGGCTTTCACG
AAGGAGGATATAGAGCAACTCAAGAGCGACTACGTGGAAGCGGCAAAACGAGCCATCCATGCTGGTTTCGATGTTATC
GAAATTCATGCAGCTCATGGATATCTACTGCATCAATTCTTGAGTCCGGTAAGCAATCAAAGAACCGACGAGTATGG

SEQ ID No 30

MAYEIIDNVAAEGVPYYTPAQDPPAGTQTSGSTKLFTPITIRGVTFPNRLFLAPLCQYSAKDGYATDWHLTHLGGIIQ
RGPGLSMVEATAVQNHGRITPQDVGLWEDGQIEPLKRITTFAHSQSQKIGIQLSHAGRKASCVSPWLSVNAVAAEEVG
GWPDNIVAPSAIAQENGVNPVPKAFTKEDIEQLKSDYVEAAKRAIHAGFDVIEIHAAHGYLLHQFLSPVSNQRTDEY

SEQ ID No 31

TTTGGATGGTATAATAATAATTCTATTTGTGAAACATACGGGGCTGGTCTTGATCAAGAACGGTCCATCTATGGTCTA
TAAAGAACTCTTGTTCACTTTCTTTCCACGTCCCTTGAAGCTCCAATCAATCTGGTTCGCCATCTTGACCTCCACGCC
AAGCTCGTTAGCAAAAGCTCGAACCAGACCAGGATTCTGTTGGAACCAACGTCCAGCCCTCACAATGTCGATACCAGA
TTGCAAAACCTCTTCAGCAAGATGTCCAGTCTTGATTCCACCTACTGCTGAAACAAGTACACTATCGCCAACAGCCTT
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TGAGCTGACGTCCACCAAGTCTACTCCATGCTTGGGCAAGATACGCGCGAGTTGACAAGTCTGCTCGACTGTCCAGCT
TTCAGGAAACTCGTCTTTGAATTGAGAGTCAAACTCGAACCAATCAGTTGCACTGACACGAACGAGGACAGGTGTAGT
TTCGGGGATGGCAGCGCGGATGAGGTCAAGGATTTCCAAGACAACTCTGATACGGTTCTCGAAACTGCCACCATACTC
GTCGGTT

SEQ ID No 32

AACCGACGAGTATGGTGGCAGTTTCGAGAACCGTATCAGAGTTGTCTTGGAAATCCTTGACCTCATCCGCGCTGCCAT
CCCCGAAACTACACCTGTCCTCGTTCGTGTCAGTGCAACTGATTGGTTCGAGTTTGACTCTCAATTCAAAGACGAGTT
TCCTGAAAGCTGGACAGTCGAGCAGACTTGTCAACTCGCGCGTATCTTGCCCAAGCATGGAGTAGACTTGGTGGACGT
CAGCTCAGGCGGTATCCATCCTAAGTCCGCCATCGCCATCAAGTCCGGTCCTGCTTACCAGGTAGACCTCGCCAAACA
GGTAAAGAAGGCTGTTGGCGATAGTGTACTTGTTTCAGCAGTAGGTGGAATCAAGACTGGACATCTTGCTGAAGAGGT
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CGAGCTTGGCGTGGAGGTCAAGATGGCGAACCAGATTGATTGGAGCTTCAAGGGACGTGGAAAGAAAGTGAACAAGAG
TTCTTTATAG

SEQ ID No 33

TDEYGGSFENRIRVVLEILDLIRAAIPETTPVLVRVSATDWFEFDSQFKDEFPESWTVEQTCQLARILPKHGVDLVDV
SSGGIHPKSAIAIKSGPAYQVDLAKQVKKAVGDSVLVSAVGGIKTGHLAEEVLQSGIDIVRAGRWFQQNPGLVRAFAN
ELGVEVKMANQIDWSFKGRGKKVNKSSL

5   SEQ ID No 34
AGGAAGTTGCATGTCACTTGTAGTGACAGGGCGTCGTGTAAATTTTATAAATACCTATACTTGTTTGTTCACTTCTAT
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GCAATATGGCTGAGACAATGCCTAAGTGTGAGGCAAATGGCCATCACAAAATCATCATCAATAAGGAAGCTCCGAATG
TTCCTTTCTATACTCCAGTGCAAGATCCACCAGCAGGAACGTCTTACGATGTTCAGCCTGAAGGAAGCCTATTCTC
10 TTATTAAAATAAGAAACCTGACTCTTCAAAACCGGATTTTTGTCTCCCCAATGTGTCAATATTCAGCAAAGGATGGTG
TCATGACCCCTGGCACAAACAACACCTGGGCAGCTTCGCACGCAGGTCCGGGTCTCATTGTCACAGAAGTCAACG
CAGTTTCACCAGAGGGACGAATCAGTCCTGAGGATGCAGGCATCTACGATGATGGGCAGCTTGGACCTCTCCGGGATA
TTGTGGACTTTGTACACAGCCAGGGCGCCAAGATTGCTATTCAGATAGGTCATGCTGGGAGAAAAGCGAGCACAGTCG
TACCGTGGCTGGACCGCAAGAACACTGCTTTTA
15

SEQ ID No 35

MPKCEANGHHKIIINKEAPNVPFYTPVQDPPAGTSYDVQPEGSLFSLIKIRNLTLQNRIFVSPMCQYSAKDGVMTPWH
20 KQHLGSFAARGPGLIVTEVNAVSPEGRISPEDAGIYDDGQLGPLRDIVDFVHSQGAKIAIQIGHAGRKASTVVPWLDR
KNTAF

SEQ ID No 36

25 GCACGAGGGATTATTGACAACATCGCGGCTGAAGGGGCTCCCTACTACACGCCTGCTCAAGACYCTCCAGCAGGCACA
CAGACCAGCGGCTCAACCAAGGTTTTCACACBCATCACCATCCGAGGCGTCACATTCCCAAACCGTCTCTTTCTTGCC
CCTCTCTGTCAATACTCCGCCAAAGATGGATATGCTACTGATTGGCACTTGACTCATCTCGGAGGCATTATCCAACGA
GGCCCGGGACTGTCCATGGTAGAGGCCACCGCTGTTCAAAACCACGGTCGCATCACGCCTCAGGACGTTGGTCTCTGG
30 GAAGATGGACAAATCGAGCCCTTTGAAGCGCATCACTACTTTTGCCCACAGCCAAAGCWCAGAAGATTGGTATTCAGC
TCTCGCACGCTGGTCGTAAGGCTAGTTGTGTATCTCCGTGGTTGAGCATCAACGCTGTTGCCGCTAAGGAAGTCGGTG
GCTGGCCAGACAACATTGTTGCTCCTTCTGCCATCGCACAAGAAGCTGGCGTGAACCCTGTTCCCAAGGCCTTCACCA
AGGAGGATATCGAGGAACTCAAGAATGACTTTCTGGCTGCAGCMAAACGAGCCAWCCGCGCTGGTTTTGATGTCATCG
AGATCCATGCAGCTCATGGATACKTGCTTCACCAGTTCTTGAGTCCAGTCAGTAACCAAAGAACCGATGAGTATGGTG
35 GCAGCTTCGAGAACCGTATCAGAGTCGTCTTGGAGATCATTG

SEQ ID No 37
GCACGAGGGATTATTGACAACATCGCGGCTGAAGGGGCTCCCTACTACACGCCTGCTCAAGACYCTCCAGCAGGCACA
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40 GGCCCGGGACTGTCCATGGTAGAGGCCACCGCTGTTCAAAACCACGGTCGCATCACGCCTCAGGACGTTGGTCTCTGG
GAAGATGGACAAATCGAGCCCTTGAAGCGCATCACTACTTTTGCCCACAGCCAAAGCCAGAAGATTGGTATTCAGCTC
TCGCACGCTGGTCGTAAGGCTAGTTGTGTATCTCCGTGGTTGAGCATCAACGCTGTTGCCGCTAAGGAAGTCGGTGGC
TGGCCAGACAACATTGTTGCTCCTTCTGCCATCGCACAAGAAGCTGGCGTGAACCCTGTTCCCAAGGCCTTCACCAAG
GAGGATATCGAGGAACTCAAGAATGACTTTCTGGCTGCAGCMAAACGAGCCAWCCGCGCTGGTTTTGATGTCATCGAG
45 ATCCATGCAGCTCATGGATACKTGCTTCACCAGTTCTTGAGTCCAGTCAGTAACCAAAGAACCGATGAGTATGGTGGC
AGCTTCGAGAACCGTATCAGAGTCGTCTTGGAGATCATTG

SEQ ID No 38
ARGIIDNIAAEGAPYYTPAQDXPAGTQTSGSTKVFTXITIRGVTFPNRLFLAPLCQYSAKDGYATDWHLTHLGGIIQR
50 GPGLSMVEATAVQNHGRITPQDVGLWEDGQIEPLKRITTFAHSQSQKIGIQLSHAGRKASCVSPWLSINAVAAKEVGG
WPDNIVAPSAIAQEAGVNPVPKAFTKEDIEELKNDFLAAXKRAXRAGFDVIEIHAAHGYXLHQFLSPVSNQRTDEYGG
SFENRIRVVLEII

SEQ ID No 39
55 CCTCAAGATCCGAGGTCTTACCCTCCAGAACCGTATTATGTTGAGGGGGCTCTGCCAGTACTCTGCTCCCGACGGACA
CTACACAATGTGGCATCACACCCACATGGGCGGCATCATCCAACGCGGTCCCGGACTCACCTGCGTTGAAGCCACAGC
CGTGACTCCTCAAGGTCGCATCACGCCTGAAGACGTCGGTATCTGGCAAGATTCTCAGATCGAGCCTCTTGCCAAGGT
CGTCGAGTTTGCCCACTCCCAGAACCAGAAGATCATGATTCAGTTGGCGCATGCGGGCCGCAAAGCGAGCACTGTGGC
ACCATGGTTAAGCGGCGGCGATGTTGCTGGTGAGGACGTCAACGGATGGCCACAGGATGTCTGGGCGCCCAGTGCGAT
60 TCCATGGAACGAGAAGCACGCTGTCCCAAAGGAGATGTCGTTGGATGATATCGAGGCTTTCAAGAAGGCGTTTGGAGA

10

GGCGGTCAAGCGGGCATTGAAGGCTGGATTTGATGTTATTGAGATTCACAATGCTCACGGATACCTCCTCCACGAATT
CATCTGCCTGAGAGCAACACCAGGACCGACAAGTACGGGCGGAAGCTGGGAAAACCGCACTCGTCTGACAATGGAAAG
TCGTCGACCTTGTCCGCAGCATT

SEQ ID No
40LKIRGLTLQNRIMLRGLCQYSAPDGHYTMWHHTHMGGIIQRGPGLTCVEATAVTPQGRITPEDVGIWQDSQIEPLA
KVVEFAHSQNQKIMIQLAHAGRKASTVAPWLSGGDVAGEDVNGWPQDVWAPSAIPWNEKHAVPKEMSLDDIEAFKKAF
GEAVKRALKAGFDVIEIHNAHGYLLHEFICLRATPGPTSTGGSWENRTRLTMESRRPCPQH

SEQ ID No 41
GACTGCCGAGTAAACGCGCCGGCAAGGAGGCGGGAGGATGGCCGGAGGATGTTGTGGGTCCGTCGGGTGGGGAGGACT
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SEQ ID No 42
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SEQ ID No.
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SEQ ID No. 45
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12

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13

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VSATDWLEEGGWTPDDTVRFARDLEAHGIDLLDVSTGGNVPRVRIPTGPGYQVPFAARVKAGSTLPVAAVGLITEPGQ
AEKILANGEADAVLLGRELLRNPSWAQHAARELGVDARMPDQYGWGM

SEQ ID No. 88
MTVSSAAAPQPASPAAPLLFTPLKLRSLELPNRVVVSPMCTYSATDGVANEFHLVHLGQYALGGAGLILAEATAVSPE
GRITPEDLGLWDDRQIVPLGHITDFVHQHGGHIGVQLAHAGRKASTYAPWRGKGAVPAELGGWQVIGPDENSFHDLFP
TPAMMGADELRGVVDAFSAAARRAQVAGFDAVEVHAAHGYLLHQFLSPLANTRTDDYGGSFENRTRLLLEVVRAVRHV
WPAHLPLFVRLSATDWAEGGWDLEQTVQLSKLLKYEGVDVLDISSGGLTAAQQIEVGPGYQVPFAAAVSRAETEISVM
AVGLIETGAQAEAILQAGDADLIALGRPFLRDPHWAQRAARELGLRPVSIDQYARAGW

SEQ ID No. 89
MRIVCIGGGPAGLYFAILMKKLNPAHEIRVIERNRPYDTFGWGVVFSDATMDNMREWDSETADAIQVAFNHWDDIELH
FKGRTIRSGGHGFVGIGRKMMLNILQARCEELGVELVFDREVESDAEFPDADLVIASDGINSRIRNKYAEVFKPDIVT
RPNRYIWLGTTKLFDAFTFFFEKTEHGWFQAHIYKFDDKTTTFIVECPEHVWKAHGLDTADQEQSIAFCEQLFGKHLD
GHRLMTNSRHLRGSAWLNFQRVKCEQWHHYNGKSHVVLMGDAVHTAHFAIGSGTKLALEDAIELTRLFRDEGDTREHI
PAVLERYQAARNIDVLRLQNAAWNAMEWFEVCGARYCDTLEPEQFMYSMLTRSQRISHENLRLRDAGWLEGYERWLAR
KAGMTVRDDETPPPPMFTPFKLRGLTLANRIVMSPMAMYSAEDGAPTDFHLVHFGSRALGGAGLLYTEMTCVSPDARI
TPGCAGMYKPEHVNAWKRIVDFVHGNSDAKIGMQLGHAGRKGATKLAWEGIDEPLEAGAWELISASPLPYLPHSQVPR
AMTRDDMERVRNDFVRATRMAAEAGFDILELHCAHGYLLSSFLSPLTNRRTDEFGGDLENRARFPLEVFKAMRAMWPT
NRPMSVRLSCHDWFPGGNTADDAVAIARLFKEAGADIIDCSSGQVWKGDQPVYGRMYQTPFADRIRNEVGIPTLAVGA
ISEADHANSIIAAGRADLCAIARPHLADPAWTLHEAAKIGFGEVAWPKQYRSARGQYETNLQRAAAAVAGK

SEQ ID No. 90
MREEPSSAQLFKPLKVGRCHLQHRMIMAPTTRFRADGQGVPLPFVQEYYGQRASVPGTLLITEATDITPKAMGYKHVP
GIWSEPQREAWREIVSRVHSKKCFIFCQLWATGRAADPDVLADMKDLISSSAVPVEEKGPLPRALTEDEIQQCIADFA
QAARNAINAGFDGVEIHGANGYLIDQFTQKSCNHRQDRWGGSIENRARFAVEVTRAVIEAVGADRVGVKLSPYSQYLG
MGTMDELVPQFEYLIAQMRRLDVAYLHLANSRWLDEEKPHPDPNHEVFVRVWGQSSPILLAGGYDAASAEKVTEQMAA
ATYTNVAIAFGRYFISTPDLPFRVMAGIQLQKYDRASFYSTLSREGYLDYPFSAEYMALHNFPV

SEQ ID No. 91
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MTIRKLDGEESMLFQPLEIANGRIRLSHRVVHAPMTRNRGVPLNPTSTPEQPNRIWYPGDLMVQYYRQRATPGGLIIS
EGVPPSLESNGMPGVPGLWTPEQAAGWKRVVDAVHEQGGYIYCQLWHAGRATIPQMTGSPAVSASATVWDSPTECYSH
PPVGSTEPVRYADHPPIELTIPHLKQTIRDYCNAAKTAMEIGFDGVELHAGNGYLPEQFLSSNVNKRTDEYGGSPEKR
CRFVLELMDELAATVGEDNLAIRLSPFGLFNQARGEQRVETWTFLCESLKKAHPNLSYVSFIEPRYEQIFSYEEKDNF
LRSWGLSDVDLSSFRKIFGTTPFFSAGGWDQSNSWGVLEEGRYDALLYGRYFTSNPDLVERLRKGIPFTPYDRSRFYG
PFEDNAKCYVDYPPATASS
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SEQ ID No. 92
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MTVESTNSFVVPAGTKQIEIAPLGSTKLFQPIKVGKNILPHRVAHAPTTRFRAAKNHTPSDLQLEYYKTHSQYPGTLI
ITEATFTSEQGGMDLHVPGIYNDAQTKAWKKINDEIHANGSFSSMQLWYLGRVANPKDLKDAGLPLIGPSAVYWDEES
EKLAKSVGNELRELTEKEIDHIVEVEYPNAAKRAIEAGFDYIEVHSAPGYFLDQFLNPASNKRTDKYGGSIENRARLL
LRIIDKLIGIVGAEKLAVRLAPWSSFLGMEIEGEEIHSYILQQLQQRADNGQQLAYVSLIEPRVIGIFDASLEDQKGR
SNEFAYKYWKGNFVRAGNYTYDAPEFKTLLHDLDNDRTIVGFARFFTSNPDLVEKLKLGKPLNHYDREEFYKYYNYGY
NSYDESEKQVIGKPLV
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SEQ ID No.
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MTIESTNSFVVPSDTKLIDVTPLGSTKLFQPIKVGNNVLPQRIAYVPTTRFRASKDHIPSDLQLNYYNARSQYPGTLI
ITEATFASERGGIDLHVPGIYNDAQAKSWKKINEAIHGNGSFSSVQLWYLGRVANAKDLKDSGLPLIAPSAVYWDENS
EKLAKEAGNELRALTEEEIDHIVEVEYPNAAKHALEAGFDYVEIHGAHGYLLDQFLNLASNKRTDKYGCGSIENRARL
LLRVVDKLIEVVGANRLALRLSPWASFQGMEIEGEEIHSYILQQLQQRADNGQQLAYISLVEPRVTGIYDVSLKDQQG
RSNEFAYKIWKGNFIRAGNYTYDAPEFKTLINDLKNDRSIIGFSRFFTSNPDLVEKLKLGKPLNYYNREEFYKYYNYG
YNSYDESEKQVIGKPL
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SEQ ID No. 94
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MAATAAESRLFQPLKLTPKITLGHRLAMAPLTRFRSDDEHVPIVPLMTTYYSQRASVPGTLLVTEATFISPAAGGYDN
VPGIYNAAQIAAWKKITDAVHAKGSFIFCQLWSLGRAANPEVLAKEGGLKLKSSSAVPMEEGAPVPEEMTVAEIKERV
AEYAAAAKNAVEAGFDGVEIHGANGYLIDQFLQDTCNQRTDEYGGSIENRSRFAHEVVKAVVEAVGAEKTGIRLSPYS
TFQGMKMKKDLIPQFEDVIRKINGFGLAYLHLTQSRVAGNMDVQPEEDEENLAFAAKLWDGPLLIAGGLTPETAKHLV
DREFPEKDVVATFGRHFISTPDLPFRIKEGIELNPYDRDTFYKAKSPDGYIDQPFSKEFEKVYGAQA
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SEQ ID No. 95
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MSFVKDFKPQALGDTNLFKPIKIGNNELLHRAVIPPLTRMRALHPGNIPNRDWAVEYYTQRAQRPGTMIITEGAFISP
QAGGYDNAPGVWSEEQMVEWTKIFNAIHEKKSFVWVQLWVLGWAAFPDNLARDGLRYDSASDNVFMDAEQEAKAKKAN
NPQHSLTKDEIKQYIKEYVQAAKNSIAAGADGVEIHSANGYLLNQFLDPHSNTRTDEYGGSIENRARFTLEVVDALVE
AIGHEKVGLRLSPYGVFNSMSGGAETGIVAQYAYVAGELEKRAKAGKRLAFVHLVEPRVTNPFLTEGEGEYEGGSNDF
VYSIWKGPVIRAGNFALHPEVVREEVKDKRTLIGYGRFFISNPDLVDRLEKGLPLNKYDRDTFYQMSAHGYIDYPTYE
EALKLGWDKK
```

SEQ ID No. 96
```
MPFVKDFKPQALGDTNLFKPIKIGNNELLHRAVIPPLTRMRAQHPGNIPNRDWAVEYYAQRAQRPGTLIITEGTFPSP
QSGGYDNAPGIWSEEQIKEWTKIFKAIHENKSFAWVQLWVLGWAAFPDTLARDGLRYDSASDNVYMNAEQEEKAKKAN
NPQHSITKDEIKQYVKEYVQAAKNSIAAGADGVEIHSANGYLLNQFLDPHSNNRTDEYGGSIENRARFTLEVVDAVVD
AIGPEKVGLRLSPYGVFNSMSGGAETGIVAQYAYVLGELERRAKAGKRLAFVHLVEPRVTNPFLTEGEGEYNGGSNKF
AYSIWKGPIIRAGNFALHPEVVREEVKDPRTLIGYGRFFISNPDLVDRLEKGLPLNKYDRDTFYKMSAEGYIDYPTYE
EALKLGWDKN
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SEQ ID No. 97.
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MPFVKGFEPISLRDTNLFEPIKIGNTQLAHRAVMPPLTRMRATHPGNIPNKEWAAVYYGQRAQRPGTMIITEGTFISP
QAGGYDNAPGIWSDEQVAEWKNIFLAIHDCQSFAWVQLWSLGWASFPDVLARDGLRYDCASDRVYMNATLQEKAKDAN
NLEHSLTKDDIKQYIKDYIHAAKNSIAAGADGVEIHSANGYLLNQFLDPHSNKRTDEYGGTIENRARFTLEVVDALIE
TIGPERVGLRLSPYGTFNSMSGGAEPGIIAQYSYVLGELEKRAKAGKRLAFVHLVEPRVTDPSLVEGEGEYSEGTNDF
AYSIWKGPIIRAGNYALHPEVVREQVKDPRTLIGYGRFFISNPDLVYRLEEGLPLNKYDRSTFYTMSAEGYTDYPTYE
EAVDLGWNKN
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SEQ ID No. 98
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GCTAGCATGACTGTCGCCGATATCGA
```

SEQ ID No. 99
```
GCTAGCCTATACATCGAAAATAGACTGC
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SEQ ID No. 100
ACTAGTCCAGGGGACTGTCGTGGTCAA

SEQ ID No. 101
5 CAATTGCCCAGGCCTAATGCATGCTG